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USSR/Astronomy - Solar Corona

"Cause of High Temperature of Solar Corona and Effect of Interstellar Magnetic Field on Stars," G. A. Leykin

DAN SSSR, Vol 88, No 1, pp 33-36

Investigation proved that high temp of solar corona can be explained only by action of electromagnetic field, as first expressed by I. S. Shklovskiy (see "Solar Corona" U sp Fiz Nauk, 30, 63, 1946). Assumes probability that emissive spectra of stars are due to rotation in interstellar magnetic field. Indebted to I. S. Shklovskiy and S. V. Pikelner. Received 17 Sep 52.

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GINDIN, Ye.Z.; LEYKIN, G.A.; LOZINSKIY, A.M.; MASEVICH, A.G.; AL'PERT, Ya.L.; CHUDESENKO, E.F.; SHAPIRO, B.S.; GAIKIN, A.M.; GORLOV, O.G.; KOTOVA, A.P.; KOSOV, I.I.; PETROV, A.V.; SEROV, A.D.; CHERNOV, V.N.; YAKOVLEV, V.I.; MIKHAYLOV, A.A., otvetstvennyy red.; BEN'KOVA, N.P., doktor fiz.-mat. nauk, otvetstvennyy red.; SILKIN, B.I., red.; PODOL'SKIY, A.D., red.; PHUSAKOVA, T.A., tekhn. red.

[Preliminary results of the scientific research on the first Soviet artificial earth satellites and rockets; collection of articles in the 11th section of the IGY program (rockets and satellites)] Predvaritel'nye itogi nauchnyykh issledovanii s pomoshch'iu pervykh sovetskikh iskusstvennykh sputnikov zemli i raket; sbornik statei (XI razdel programmy MGG - rakety i sputniki). Moskva, Izd-vo Akad. nauk SSSR. No.1. 1958. 148 p. (MIRA 11:10)

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(Atmosphere, Upper—Rocket observations)
(Artificial satellites)

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Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 6, pp 140 - 141 (USSR)

AUTHORS: Gindin, Ye.Z., Leykin, G.A., Lozinskiy, A.M., Masevich, A.G.

TITLE: The Optical Observations of Artificial Earth Satellites

PERIODICAL: V sb.: Predvarit. itogi nauchn. issled. s pomoshch'yu pervykh sov. iskustv. sputnikov Zemli i raket, Moscow, AS USSR, 1958, pp 5 - 39 (Engl. Res.)

ABSTRACT: The Astronomicheskiy sovet Akademii nauk SSSR (Council of Astronomy of the USSR Academy of Sciences) was put in charge of organizing the optical observations of artificial earth satellites. Sixty-six visual stations and twenty-four photographic stations were established for observing the satellites. The visual observation stations began their activity at the time when the first Soviet satellite was launched, while photographic observations have been performed systematically since the beginning of 1958. The visual observation methods were determined by the task: they must establish the position of a satellite on

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the celestial sphere with an accuracy of 0.5 to 1° and the time within 0.5 to 1 sec, and must report the observation results to the computer center within the shortest time. Two "optical barriers", each consisting of about 30 telescopes, were established to facilitate the observation of satellites having a low brightness and moving on the sky with a velocity of 1° per 1 sec, if the orbit is known only approximately. The barriers are located on the meridian and along a vertical circle perpendicular to the visible orbit of the satellite. The sight lines of the telescopes are adjusted in such a way that each section of the optical barrier is covered twice. For determining the time of passage of a satellite with an accuracy exceeding 1 sec, the time signals and the signals given by the observer at the time when the satellite passed, are recorded on tape. After the termination of the observations, the tape recording is reproduced at a low speed and the precise moment of passage is determined by a chronoscope. The coordinates of the satellite are determined by the sidereal maps of A.A. Mikhaylov's atlas or of A. Bechvarzh's atlas. When observing satellites of low brightness (15 - 8 stellar magnitude) the AT-1 telescope is used, which is a small wide-angle telescope having a 50 mm objective lens and six-power magnification. The field of view is 11°.

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The stations observing the satellites are provided with signals of the correct time by feeding to them second tone signals. On the basis of observation data, the computer center informs the stations on the coming passage of a satellite. The station receives a coded telegram containing information on the time and altitude of a satellite's passage in the meridional plane and in the plane in which the nearest point of the orbit is located. Observations of artificial satellites are also performed on the territories of the Chinese People's Republic (KNR), the German Democratic Republic (GDR), Czechoslovakia, Poland, Hungary, Rumania, and Bulgaria, where 45 stations are in operation. Further, observatories in England, Scotland, Ireland, the US and other countries were included in the visual and photographic observation system of the Soviet satellites. At some stations, besides the visual observations, the positions of the carrier rocket and the second Soviet satellite are determined photographically by "Zorkiy" cameras with "Yupiter 8" lenses. At the time of the satellites passage across the field of view of the camera, the shutter is opened for a brief time interval (2 - 5 sec). The begin and the end of the exposure are marked by a chronograph. It is possible to determine by photo-

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graphic observations the position of a satellite with an accuracy of 3' - 5' of arc. The Council of Astronomy discussed the problem of using light flashes of short duration on the object for a precise determination of a satellite's position. The position of a satellite may be determined with an accuracy of 2 - 3 sec of arc when using cameras with a long focal length (F = ~1 m) for photographing the satellite. Using the data of these observations for triangulation on the earth's surface, the distance between different points (especially between continents) and also the shape of the geoid may be determined with an accuracy of 10 m. However, the photography of satellites is made difficult by the following circumstances: 1) the observations are possible only at dusk; 2) cameras with a very great light power are required; 3) the setting of precise time marks is complicated. These difficulties can be overcome if the satellite is equipped with a light source producing brief flashes by which it may be photographed at night. It is expedient to provide series of flashes and not a continuous feed, taking into consideration that at least two or three flashes must arrive in the field of view of the instrument. In this way it is possible to determine not only the position but also the angular velocity of a satellite. Obviously,

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a pulse gas discharge lamp should be used as a light source, whose light output reaches 60 lm/w. The brightness of a satellite depends on the following reasons: 1) changes in the satellite's phases, i.e. in the configuration sun - satellite - observer; 2) changes in the distance to the observer; 3) light absorption in the section of its path from the satellite to the observer; 4) rotation and tumbling of a satellite; 5) changes in the state of the satellite's surface. The determination of the period of rotation (tumbling) of the satellite's body and changes of this period in time are of the greatest interest. Another important problem is the investigation of the dependence of the brightness and color of a satellite on the state of the earth's atmosphere. Finally, the third problem is the change of the state of the satellite's surface under the influence of the atmosphere and extraterrestrial agents. For solving the aforementioned problems a precise quantitative determination of brightness changes of a satellite and observations over a possibly great section of its trajectory are necessary. Presently, two methods are used for measuring a satellite's brightness. The first method consists in a

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AUTHOR: Leykin, G. A.

TITLE: A Probe for the Measurement of Density and Temperature during Motion with Supersonic Speed in a Highly Rarefied Medium. (Zond dlya izmereniya plotnosti i temperatury pri dvizhenii so sverkhzvukovoy skorost'yu v sil'no razrezhennoy srede)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 4, pp 558-559 (USSR)

ABSTRACT: It is possible to construct a relatively simple probe for measuring the temperature and density of a highly rarefied medium from an oriented body moving in that medium with a supersonic velocity. One uses the fact that the thermal velocities of the particles of the medium, although much smaller than the speed of the body, are sufficiently large to produce a loss of definition in the corpuscular shadow, the more so the higher the temperature. A simple probe may be made in the form of a tube placed parallel to the direction of motion and having a diaphragm in the front end such that its aperture is small compared with the mean free path in the medium. The distribution of molecules entering the tube across the section of the tube will be determined by the thermal velocities of the molecules so long as their path does not exceed the mean free path. At the same time

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the total flux of molecules entering the tube is determined by the density of the medium and the velocity of the body. The medium should be sufficiently rarefied so that the shock wave in front of the body does not appear. The effect of the shock wave may also be reduced by providing the aperture of the tube with a deflector. Suppose that at a distance $l < \lambda$ inside the tube (λ is the mean free path) there is a grid of thermocouples or other energy detectors (it is essential for the area of these detectors to be much less than the cross-section of the tube, otherwise a special device for removing the gas from the tube must be incorporated) and suppose further that the velocity of the body V_0 is much greater than the thermal velocities of the particles of the medium. On traversing the distance l during a time l/V_0, a molecule having a component of thermal velocity in a direction perpendicular to V_0 equal to v will move away from the axis of the tube to a distance:

$$r = \frac{l}{V_0} v$$

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Let the z axis be parallel to the velocity of the body. We can write the Maxwellian distribution in the form

$$dN(v) = N\left(\frac{m}{2\pi kT}\right)^{3/2} \exp\left[-\frac{m(v_x^2 + v_y^2) + v_z}{2kT}\right] dv_x dv_y dv_z \ .$$

Integrating with respect to v_z and remembering that $v^2 = v_x^2 + v_y^2$ we have

$$dN(r) = N\frac{m}{4\pi kT} \exp\left[-\frac{m}{2kT}\left(\frac{V_o}{l} r\right)^2\right]\left(\frac{V_o}{l}\right)^2 dx\, dy \ .$$

Neglecting the thermal velocity compared with the velocity of the body we find that the energy flux per unit area of cross-section of the tube is:

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$$\varepsilon(r) = \frac{\sigma n_0 m V_0^3}{4} \frac{m}{2\pi kT} \exp\left[-\frac{m}{2kT}\left(\frac{V_0}{l} r\right)^2\right]\left(\frac{V_0}{l}\right)^2$$

where σ is the area of the aperture, n_0 the number of molecules per cc in the medium. By measuring the ratio of energies at different distances from the axis of symmetry it is possible to obtain an estimate of the kinetic temperature of the molecules of the medium. In fact,

$$\ln \frac{\varepsilon(r_1)}{\varepsilon(r_2)} = -\frac{m}{2kT}\left(\frac{V_0}{l}\right)^2 \{r_1^2 - r_2^2\} \quad \text{or}$$

$$T = \frac{m}{2k}\left(\frac{V_0}{l}\right)^2 \frac{r_2^2 - r_1^2}{\ln \varepsilon(r_1) - \ln \varepsilon(r_2)}$$

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In the case of a multicomponent gas the formulae are somewhat more complicated. Knowing the temperature, the velocity of the body, and the mass of the molecules, the density may be found. With $\sigma = 1$ cm^2, $n_0 = 10^8$ particles/cc, $m = 2.7 \times 10^{-23}$ g (atomic oxygen), $V_0 = 8 \times 10^5$ cm/sec, $T = 1000^\circ$K, $V_0/l \approx 10^5$ sec^{-1} ($l \approx 10$ cm) the energy flux per 1 cm^2/sec is of the order of a few ergs. Since the energy flux from a zero magnitude star is of the order of 10^{-5} erg/cm^{2}sec, and in astronomical practice such fluxes are measured using a bolometer or a thermocouple attached to a telescope having a working aperture of $\sim$1m and a detector area $\sim$0.1cm, one may expect that the energy flux in the probe is measurable. If the molecules of the medium are dissociated and recombination takes place at the detector, a considerable increase in the energy flux will occur. The method of calculation of the temperature in this case is the same as before since the ratio of the energy flux at different distances from the axis does not change. If the medium is strongly ionised one must take into account ambipolar diff-

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usion which leads to even greater diffuseness. The energy output in this case strongly increases as a result of recombination at the detector. The excess negative charge on the walls may be easily removed to the outer surface of the body. The above probe may also be used as an instrument indicating the orientation of the moving body in space: the shift of the intensity maximum from the axis of symmetry will signalise a deviation of the direction of the axis of the tube from the direction of the velocity of the body. Such a shift of the maximum can probably be used to maintain a constant orientation of the axis of the body.

ASSOCIATION: Akademiya nauk SSSR, Mezhduvedomstvennaya komissiya po mezhplanetnym soobshcheniyam pri Astronomicheskom sovete (Academy of Sciences of the USSR, Interdepartmental Commission for Interplanetary Communications of the Astronomical Council)

SUBMITTED: August 22, 1957.

Card 6/6 1. Gases—Testing equipment 2. Gases—Supersonic characteristics 3. Density—Measurement 4. Mathematics

SOV/ 49-58-12-14/17

AUTHOR: Leykin, G. A.

TITLE: Application of Flashing Light for Determination of the Position of Artificial Earth Satellites (Ob ispol'zovanii svetovykh vspyshek dlya opredeleniya polozheniya iskusstvennykh sputnikov zemli)

PERIODICAL: Izvestiya akademii nauk SSSR, Seriya geofizicheskaya, 1958, Nr 12, pp 1520-1521 (USSR)

ABSTRACT: A method of determining the position of an artificial earth satellite by an application of flashing light has been widely discussed (Ref.1); but it shows so many limitations that it cannot be used in practice. However, a method is proposed whereby a light source of a satellite produces flashes at certain pre-determined times. The flashing device would give an accuracy of 1 - 0.01%, therefore for an accuracy of determination equal to 2-3 sec, the exact intervals of the flashes could have an error of only 1 m sec. The light flashes could be photographed by an astronomical camera, having an angle of view equal to 5° or by an air camera with 20° field. This field could embrace several flashes at one setting

Card 1/2

Application of Flashing Light for Determination of the Position of Artificial Earth Satellites

provided the distance between flashes was half a degree. There are 4 references, 2 of which are Soviet and 2 English.

SUBMITTED: August 22, 1957.

Card 2/2

3(1),29(1)

AUTHOR: Leykin,G.A.

SOV/33-35-2-18/21

TITLE: The Influence of Tidal Friction on the Motion of the Sputnik (O vliyanii prilivnogo treniya na dvizheniye sputnika Zemli)

PERIODICAL: Astronomicheskiy zhurnal, 1958, Vol 35, Nr 2,pp 297-300 (USSR)

ABSTRACT: The tide wave caused by the sputnik generates a force couple which accelerates or checks the motion of the sputnik. The author assumes that the sputnik is on an equatorial circular orbit and that the Earth is spherical, absolutely hard, and covered by an ocean of constant depth. With the aid of the statistical tide theory he investigates the tide wave, then he estimates the generated momentum and calculates the possible change of the orbit of the sputnik. The comparison with the results of Logie [Ref 1] seems to be interesting: for the minimal time used by the sputnik in order to reach the Earth again, in dependence of the radius of the orbit, the author obtains 59 and 136 days, respectively; in the same cases Logie obtained 136 and 337 days.
There are 3 English references.

ASSOCIATION: Astronomicheskiy sovet Akademii nauk SSSR (Astronomical Council of the AS USSR)

SUBMITTED: June 17, 1957

Card 1/1

LEYKIN, G.A.

Plenum of the Astronomical Council February 5-7, 1958.
Aston. tsir. no.190:27-28 Mr '58. (MIRA 11:9)

1. Astrosovet AN SSSR, Moskva.
(Astronomy)

Leykin, G.A.

PHASE I BOOK EXPLOITATION SOV/3652

Vsesoyuznoye astronomo-geodezicheskoye obshchestvo

Astronomicheskiy kalendar' 1960 (Astronomical Calendar, 1960) Moscow, Fizmatgiz, 1959. 351 p. (Series: Its: Yezhegodnik; peremennaya chast', vyp. 63) 7,200 copies printed.

Ed.: I.Ye. Rakhlin; Tech. Ed.: S.N. Akhlamov; Editorial Board: P.I. Bakulin (Resp. Ed.), M.M. Dagayev, S.G. Kulagin, A.G. Masevich, P.P. Parenago.

PURPOSE: The book is intended for astronomers and geophysicists and physicists interested in astronomical phenomena.

COVERAGE: This yearbook on astronomy was compiled by a number of Soviet scientists specializing in several different branches of astronomy. The following persons participated in the work: L.D. Kovbasyuk, who wrote the chapters on ephemerides of the Sun and Moon; M.M. Dagayev, the chapters on planets, eclipses, physical coordinates of the Sun, Moon, Mars, and Jupiter, and the satellites of Jupiter and Saturn; V.S. Lazarevskiy, the chapters on ephemerides and heliocentric longitudes of planets; Ye.G. Demidov, the chapters on occultation of stars and coor- planets by the Moon, observations of Polaris and computation of dinates of stars; V.A. Bronshten, the chapters on comets; K.S. Yakhontova, sections on minor planets; and N.B. Perova, the chapters on variable stars. The appendixes contain articles on recent developments and events in astronomy such as the launching of the first Soviet space rocket, the 10th Congress of the International Astronomical Association held in Moscow in August 1958, developments in astronomy in 1958 during the IGY. There are 385 references, all Soviet.

AVAILABLE: Library of Congress

7

SOV/30-59-7-37/50

29(0)
AUTHOR: Leykin, G. A., Candidate of Physical-Mathematical Sciences

TITLE: Visual Observations of Artificial Earth Satellites (Vizual'nyye nablyudeniya iskusstvennykh sputnikov Zemli)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 7, pp 106-107 (USSR)

ABSTRACT: From April 15 to 17 the 2nd All-Union Conference of the heads of Sputnik observation stations was held in Moscow. It had been convened by the Council of Astronomy of the Academy of Soiences, USSR and was devoted to the exchange of experience and the discussion of the tendencies apparent in the work. A. G. Masevich, Deputy Chairman of the Council, announced in her inaugural address that the 72 stations in the Soviet Union had carried out 23,500 visual observations of artificial satellites in 1958. In addition, 17,000 observations of Soviet satellites were made and reported on by observers in foreign countries. The following reports were made at the Conference: A. A. Mashkov showed how the consideration of the inclination of planet orbits influences the selection of optimum flight parameters. Yu. V. Batrakov reported that at the Institut teoreticheskoy astronomii (Institute of Theoretical Astronomy) the analysis of the accuracy of the data obtained by optical

Card 1/3

Visual Observations of Artificial Earth Satellites

observations is being carried out. A self-recording visual photometer designed at the Riga Observatory renders it possible to measure the brightness of artificial satellites (V. V. Shmeling). At Ryazan' (V. I. Kuryshev), Tbilisi (G. D. Kvirkveliya), Baku (A. M. Isayev), Khabarovsk (V. A. Sorokin) the telescopes AT-1 are provided with horizontal and vertical circles so that it becomes possible to carry out observations in the horizontal system of coordinates. At Tartu Ya. E. Eynasto designed a device for the observation of artificial satellites on the basis of the theodolite OT-10. In this instrument data obtained by the circles are photographed by means of the camera "Leningrad". A. Ya. Virin (Smolensk), S. A. Leshakov (Petrozavodsk), V. M. Kondratenko (Chernovtsy) reported on the perfection of observations by the method of referring to the stars (metod privyazki). A. G. Sukhanov (Vladivostok) and V. A. Merkushev (Novosibirsk) described the finding of coordinates of a satellite by means of the coordinates of neighboring stars. M. Kh. Kadyrov reported on experience of the Ashkhabad Station. B. N. Gimmel'farb (Arkhangel'sk) outlined the multiplicity of the observation methods used. At the Dnepropetrovsk Station (V. Ye. Solov'yev)

Card 2/3

GINDIN, Ye.Z.; LEYKIN, G.A.; LOZINSKIY, A.M.; LUR'YE, M.A.; MASEVICH, A.G.; SEVERNAYA, O.A.; SEMTSOVA, Yu.Ye.; SLOVOKHOTOVA, N.P.; TOL'SKAYA, V.A.; TSITOVICH, V.V.

Brief report of the Astronomical Council of the Academy of Sciences of the U.S.S.R. on visual and photographic observations of artifical earth satellites in 1957-1959. Biul. sta. opt. nabl. isk.. sput. Zem. no. 6:1-33 '60. (MIRA 14:2)
(Artificial satellites--Tracking)

39332
S/035/62/000/007/059/083
A001/A101

3.2200

AUTHORS: Grigorevskiy, V. M., Leykin, G. A.

TITLE: Determination of rotational axis position of an oblong satellite on the basis of the ratio of extremal luminosity values and the shift of extremum instants

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 7, 1962, 95, abstract 7A708 ("Byul. st. optich. nablyudeniya iskusstv. sputnikov Zemli", 1960, no. 12, 3 - 9)

TEXT: Two methods of determining rotational axis of artificial satellites from photographic data are proposed. In the first method, an oblong, axial-symmetrical, diffuse-reflecting satellite is considered whose surface part, visible by an observer, is fully illuminated by the Sun. Moreover, a condition is imposed that the observer be located in the satellite orbit plane. Under these assumptions, function S is derived expressing the area of the satellite projection onto the mapping plane in the coordinate system connected with the satellite. Formulae for determining the orientation of the satellite rotational axis and the angle between the rotational axis and the axis of its symmetry are obtained from the extremal

Card 1/2

Astronomicheskiy sovet AN SSSR

Card 2/2

DLUZHNEVSKAYA, O.B.; LEYKIN, G.A.

Periodicity in brightness variations of the Echo-1 satellite. Biul.sta.opt.nabl.isk.sput.Zem. no.27:3-14 '62. (MIRA 15:12)

1. Astronomicheskiy sovet AN SSSR.
(Artificial satellites)

35.63-65

AUTHOR: Leykin, G. A.

TITLE: Automatic device for measuring the coordinates of points. Class 42, No. 168468

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 1, 1965, 103

TOPIC TAGS: image measurement

ABSTRACT: This Author Certificate presents an automatic device for measuring the coordinates of points, e.g., [illegible] photoelectric attachment, and a shift mechanism. The photoelectric attachment fixes the relative motion of the measurement unit and is connected into the circuit of a recording device to [illegible]

Card 1/3

L 35003-65
ACCESSION NR: AP5007441

[illegible] is mounted on a [illegible]
[illegible] Enclosure [illegible]
[illegible] negative equals its radius of curvature. [illegible] diagram.

ASSOCIATION: none

SUBMITTED: 28Nov63 ENCL: 01 SUB CODE: ES

NO REF SOV: 000 OTHER: 000

Card 2/3

ACCESSION NR: AP5007411

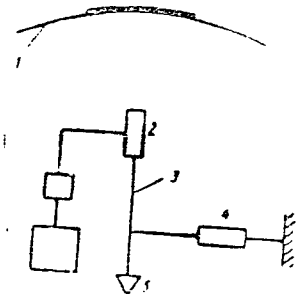


Fig. 1. Automatic device for measuring the coordinates of points

1- negative holder; 2- photoelectric attachment; 3- lever; 4- shift mechanism; 5- fixed point of lever

Card 3/3

ACC NR: AP6023033 SOURCE CODE: UR/0384/66/000/002/0036/0043

AUTHOR: Leykin, G. A. (Candidate of physico-mathematical sciences)

ORG: none

TITLE: The moon from the astronaut's point of view

SOURCE: Zemlya i vselennaya, no. 2, 1966, 36-43

TOPIC TAGS: moon, lunar atmosphere, lunar surface, lunar landing

ABSTRACT: Physical characteristics of the moon are presented and compared systematically with corresponding characteristics of the earth. Methods of studying conditions on the moon are also discussed. Specific characteristics compared are atmospheres, relief, magnetic fields, thermal states, surface dust and chemical composition of rocks. The article was written before the Soviet Luna-9 landed on the moon in February 1966. Some of the information obtained by Luna-9 has been incorporated in various pertinent portions of the text in bold type. Orig. art. has: 4 figures.

SUB CODE: 03/ SUBM DATE: none

Card 1/1

ACC NR: AR6032365 SOURCE CODE: UR/0313/66/000/007/0016/0016

AUTHOR: Leykin, G. A.

TITLE: A scanning camera for photographing artificial spaceborne bodies

SOURCE: Ref. zh. Issledovaniye kosmicheskogo prostranstva, Abs. 7.62.112

REF SOURCE: Byul. st. optich. nablyud. ISZ, no. 43, 1965, 3-5

TOPIC TAGS: camera, spaceborne camera, scanning camera, lens

ABSTRACT: To improve the penetration capacity of a space camera, it is proposed to use a raster with positive lenses near the camer's focal plane. The size of the lenses is about 0.5 mm. The use of a raster leads to the reduction of an equivalent focal length of a camera and to an increase of (approximately double) the lens speed. The raster, inserted on a transparent base of the photo-layer, can be used to carry out a photosurvey through the base. The application of a raster, however, leads to a decrease in the accuracy of determining the coordinates. The formulas necessary for the calculation of the raster's elements are derived. [Translation of abstract]

SUB CODE: 14/

Card 1/1

ACC NR: AR6028748 SOURCE CODE: UR/0269/66/000/006/0011/0011

AUTHOR: Leykin, G. A.

TITLE: A screen camera for photographing artificial bodies in space

SOURCE: Ref. zh. Astronomiya, Abs. 6.51.90

REF SOURCE: Byul. st. optich. nablyud. ISZ, no. 43, 1965, 3-5

TOPIC TAGS: camera, satellite photography, satellite tracking

ABSTRACT: To increase the penetrating force of a camera it is proposed to place near its focal plane a screen of positive lenses each measuring 0.5 mm. Such a screen reduces the equivalent focal length of the camera and increases its relative aperture. A screen impressed on a transparent base of the photosensitive layer may be used. The presence of the screen, however, reduces the accuracy of coordinate determination. Necessary formulas for calculating screen elements are presented. [Translation of abstract] G. Lengauer

SUB CODE: 14, 22

Card 1/1 UDC: 522.61.629.195

BOMSHTEYN, A.I.; LEYKIN, I.L.

Main trends in the construction of aniline industry enterprises.
Prom.stroi. 37 no.3:19-21 Mr '59. (MIRA 12:4)
(Coal-tar colors) (Chemical plants)

LEYKIN, I. M.

"Production of Low Alloy Rails," Stal', No.5, pp. 398-401. 1945

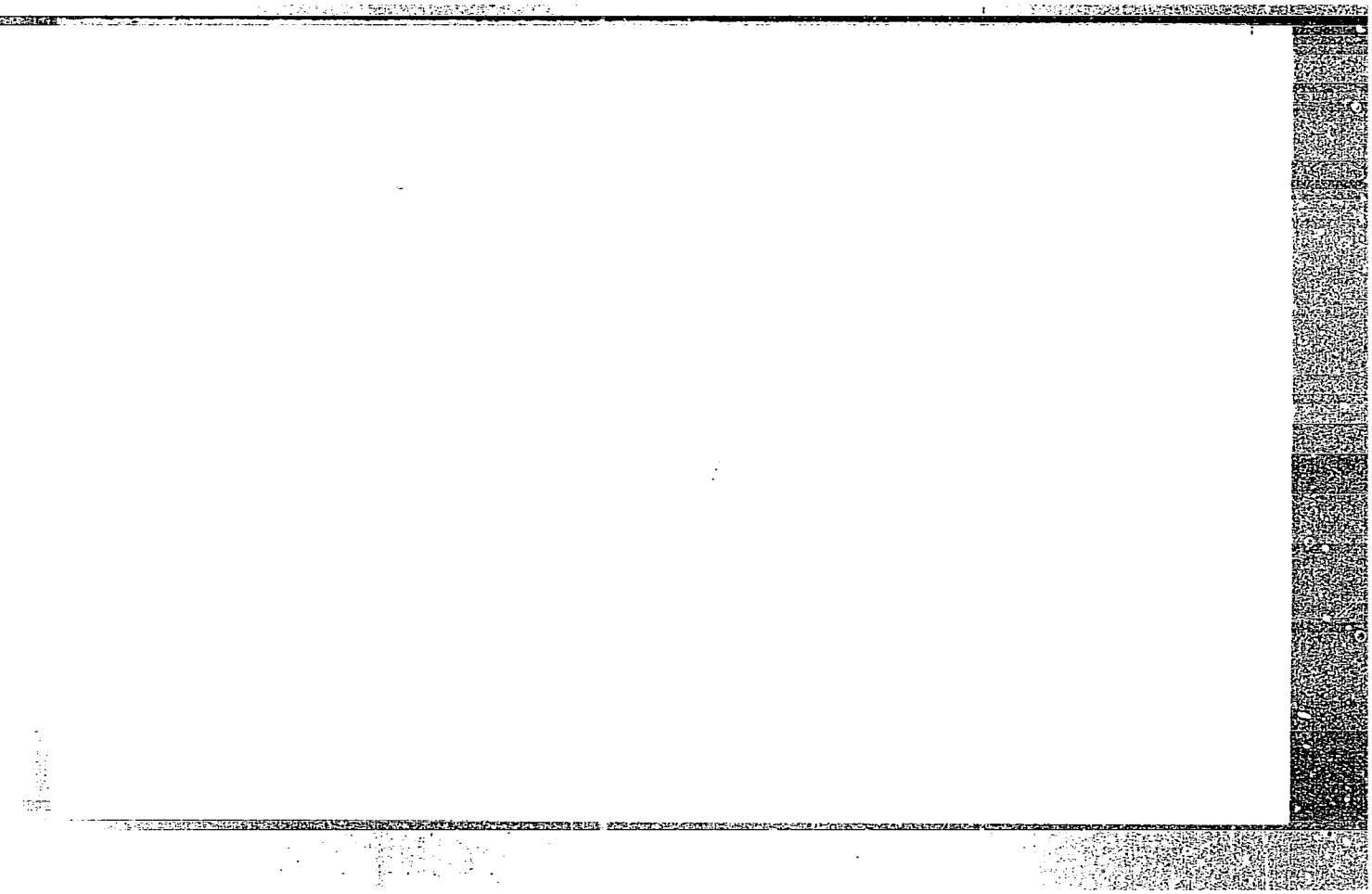
Evaluation B-59660

LEYKIN, I.M.

Technology

Low-alloy structural steels. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.



APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000929720(

AL'TGAUZEN, O.N., kandidat fiziko-matematicheskikh nauk; BERNSHTEYN, M.L., kandidat tekhnicheskikh nauk; BLANTER, M.Ye., doktor tekhnicheskikh nauk; BOKSHTEYN, S.Z., doktor tekhnicheskikh nauk; BOLKHOVITINOVA, Ye.N., kandidat tekhnicheskikh nauk; BORZDYKA, A.M., doktor tekhnicheskikh nauk; BUNIN, K.P., doktor tekhnicheskikh nauk; VINOGRAD, M.I., kandidat tekhnicheskikh nauk; VOLOVIK, B.Ye., doktor tekhnicheskikh nauk [deceased]; GAMOV, M.I., inzhener; GELLER, Yu.A., doktor tekhnicheskikh nauk; GORELIK, S.S., kandidat tekhnicheskikh nauk; GOL'DENBERG, A.A., kandidat tekhnicheskikh nauk; GOTLIB, L.I., kandidat tekhnicheskikh nauk; GRIGOROVICH, V.K., kandidat tekhnicheskikh nauk; GULYAYEV, B.B., doktor tekhnicheskikh nauk; DOVGALEVSKIY, Ya.M, kandidat tekhnicheskikh nauk; DUDOVTSEV, P.A., kandidat tekhnicheskikh nauk; KIDIN, I.N., doktor tekhnicheskikh nauk; KIPNIS, S.Kh., inzhener; KORITSKIY, V.G., kandidat tekhnicheskikh nauk; LANDA, A.F., doktor tekhnicheskikh nauk; LEYKIN, I.M., kandidat tekhnicheskikh nauk; LIVSHITS, L.S., kandidat tekhnicheskikh nauk; L'VOV, M.A., kandidat tekhnicheskikh nauk; MALYSHEV, K.A., kandidat tekhnicheskikh nauk; MEYERSON, G.A., doktor tekhnicheskikh nauk; MINKEVICH, A.N., kandidat tekhnicheskikh nauk; MOROZ, L.S., doktor tekhnicheskikh nauk; NATANSON, A.K., kandidat tekhnicheskikh nauk; NAKHIMOV, A.M., inzhener; NAKHIMOV, D.M., kandidat tekhnicheskikh nauk; POGODIN-ALEKSEYEV, G.I., doktor tekhnicheskikh nauk; POPOVA, N.M., kandidat tekhnicheskikh nauk; POPOV, A.A., kandidat tekhnicheskikh nauk; RAKHSHTADT, A.G., kandidat tekhnicheskikh nauk; ROGEL'BERG, I.L., kandidat tekhnicheskikh nauk;

(Continued on next card)

AL'TGAUZEN, O.N.---- (continued) Card 2.

SADOVSKIY, V.D., doktor tekhnicheskikh nauk; SALTYKOV, S.A., inzhener; SOBOLEV, N.D., kandidat tekhnicheskikh nauk; SOLODIKHIN, A.G., kandidat tekhnicheskikh nauk; UMANSKIY, Ya.S., kandidat tekhnicheskikh nauk; UTEVSKIY, L.M., kandidat tekhnicheskikh nauk; FRIDMAN, Ya.B., doktor tekhnicheskikh nauk; KHIMYSHIN, F.F., kandidat tekhnicheskikh nauk; KHRUSHCHEV, M.M., doktor tekhnicheskikh nauk; CHERNASHKIN, V.G., kandidat tekhnicheskikh nauk; SHAPIRO, M.M., inzhener; SHKOL'NIK, L.M., kandidat tekhnicheskikh nauk; SHRAYBER, D.S., kandidat tekhnicheskikh nauk; SHCHAPOV, N.P., doktor tekhnicheskikh nauk; GUDTSOV , N.T., akademik, redaktor; GORODIN, A.M. redaktor izdatel'stva; VAYNSHTEYN, Ye.B., tekhnicheskiy redaktor

[Physical metallurgy and the heat treatment of steel and iron; a reference book] Metallovedenie i termicheskaia obrabotka stali i chuguna; spravochnik. Pod red. N.T.Dudtsova, M.L.Bernshteina, A.G. Rakhshtadta. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 1204 p. (MLRA 9:9)

1. Chlen -korrespondent Akademii nauk USSR (for Bunin)
(Steel--Heat treatment) (Iron--Heat treatment)
(Physical metallurgy)

LEYKIN, I.M., kandidat tekhnicheskikh nauk; MARAKHOVSKIY, I.S.; PODGORODETSKIY, A.F.

Production of low-alloy steel at the Zaporozhstal' plant. Metallurg no.4: 13-15 Ap '56. (MLRA 9:9)

1.TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Leykin).2.Nachal'nik staleplavil'noy laboratorii TsZL (for Marakhovskiy).3.Rukovoditel' gruppy TsZL "Zavod Zaporozhstal'" (for Podgorodetskiy).
(Zaporozhye--Metallurgical plants) (Steel alloys)

LEYKIN, I.M., kandidat tekhnicheskikh nauk.

Properties and use of low-alloy steels. Metallurg. no.8:1-4 Ag '56. (MLRA 9:10)

1.TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. (Steel alloys) (Steel, Structural)

Leykin, I. M.

130-3-7/21

AUTHOR: Leykin, I. M., Candidate of Technical Sciences.

TITLE: Deoxidation of low-alloy steels and ferroalloy economy. (Raskisleniye nizkolegirovannykh staley i ekonomiya ferrosplavov).

PERIODICAL: Metallurg, 1958, No.3, pp.13-16 (USSR).

ABSTRACT: The author deals first with the deoxidation of low-alloy steels in the furnace. He states that although silicomanganese as the deoxidizer gives the best steel, comparable results can be obtained by using ferro-manganese and blast-furnace ferrosilicon when the carbon content permits. Non-metallic (oxide) inclusions can be reduced, he suggests, by increasing the manganese:silicon ratio and decreasing the aluminium content of the ferro-alloys. For steels with 0.12 - 0.15% carbon the author cites experience at the Alcheskiy Combine where silicomanganese is partly replaced by ferromanganese, the latter being charged first. Another possibility he mentions is the addition of 0.75 - 1.5% of manganese ore when making the secondary slag (at the Alcheskiy Combine a manganese content in the metal of 0.28 - 0.32% before deoxidation is secured thereby with a carbon content of about 0.1%) which enables ferroalloys with a lower Mn:C

Card 1/3

ratio. The author considers next the loss of manganese (and chromium for chromium-containing steels) in relation to the retention time of the metal in the furnace after ferroalloy addition. He quotes N. N. Dobrokhotov's formula which states the recommended time (minutes) to be 1.5 times the ratio of the weight (kg) of ferroalloys to the productivity of the furnace (tons per 24 hours) and he considers the effect of carbon content. Dealing with the practice, widely adopted recently, of making killed steel without preliminary deoxidation in the furnace, he mentions some advantages of this procedure. Thus at one works about 20% of silicomanganese was saved when all the manganese was introduced into the ladle in this form and manganese ore was added in the furnace; 35% was saved when blast furnace ferromanganese (7 kg/ton) as well as manganese ore was added. He recommends the addition to the ladle of silicochromium when making low-alloy chromium containing steels - up to 20-22 kg/ton of ferroalloy have been aded at several works (e.g. Alchevskiy, Stalinskiy). After noting the beneficial effects of melting ferroalloys before ladle additions, the author

Deoxidation of low-alloy steels and ferroalloy economy. 130-3-7/21

goes on to consider the use of aluminium and titanium for deoxidation in the ladle and mentions the effect on the grain size and properties of the steels. He gives a practical figure of 0.75 - 2.5 kg of 25% Ti ferrotitanium for a low-alloy steel and discusses optimal values for aluminium additions, indicating the special need for caution when steel with high manganese and silicon contents are being made. Pointing out that when aluminium lumps are thrown into the metal stream 65 - 85% of the element is oxidized, the author mentions the use of rods or of iron pipe (in Germany) for introducing the aluminium. There is one figure.

ASSOCIATION: Central Ferrous Metallurgical Research Institute. (Tsentral'nyy Nauchno-Issledovatel'skiy Institut Chernoy Metallurgii).

AVAILABLE: Library of Congress.

Card 3/3

18.3200

78180
SOV/133-60-3-5/24

AUTHORS: Leykin, I. M. (Candidate of Technical Sciences), Sabiyev, M. P., Shidkov, V. A. (Engineers)

TITLE: Production of Low Alloy Steels 19G and 14KhGS Without Reduction by Silicon in the Furnace

PERIODICAL: Stal', 1960, Nr 3, pp 216-219 (USSR)

ABSTRACT: This is a report concerning test melts conducted by the personnel of the Central Scientific Research Institute of Ferrous Metallurgy (TsNIIChM) and the Alchevskiy Metallurgical Plant (Alchevskiy metallurgicheskiy zavod in Voroshilovsk). A series of test melts of 14KhGS and 19G steels were made in the furnaces with chromium magnesite roof, fired by mixed gas. The furnaces worked on scrap-ore process with two stage drawing off of slag. 13.5 ton ingots were produced by bottom pouring; 14.5 ton ingots by direct pouring. The reduction took place in the ladle. The change of chemical content of tested steels in the course of test pouring was as follows:

Card 1/3

Production of Low Alloy Steels 19G and 14KhGS Without Reduction by Silicon in the Furnace

78180
SOV/133-60-3-5/24

steel 14KhGS: 0.10-0.14% C; 0.85-1.00% Mn; 0.53-0.66% Si; 0.017-0.030% P; 0.026-0.039% S; 0.44-0.54% Cr. Steel 19G: 0.16-0.20% C; 0.94-1.03% Mn; 0.27-0.34% Si; 0.021-0.034% P; 0.025-0.043% S. The authors arrived at the following conclusions: (1) The investigated method of reduction of steels 14KhGS and 19G (without introducing silicon into the furnace) permits a noticeable decrease in the consumption of manganese-silicon and a decrease of expenses for reducer. (2) With the increase of the degree of utilization of manganese and silicon (introduced with ferroalloys), the specific consumption of manganese was reduced by 8.8% and that of silicon by 37%. (3) The reduction of metal in the furnace by ferromanganese produces only steel with reduced phosphorus content (in the test melts the average phosphorus content was 30% less than in regular melts). (4) During reduction of steel in the ladle, a uniform distribution of elements over the whole volume of metal takes place, accompanied by some decrease in hydrogen content. A special feeder is recommended for

Card 2/3

introduction of reducers into the ladle. This feeder gives means to control the amount of admixtures fed into the ladle per unit time. (5) Due to the cooling effect of sizeable admixtures of ferroalloys, the metal before tapping should have a temperature 10° C higher than usual. (6) The total content of nonmetallic inclusions in test steels proved to be lower than in regular melts. (7) The impact strength of sheets made from test melts of 14KhGS and 19G steels at room temperature and at reduced test temperatures, as well as after aging, is not lower than that of sheets made from regular melts. There are 4 tables.

ASSOCIATION: TsNIIChM and Alchevskiy Metallurgical Plant (TsNIIChM i Alchevskiy metallurgicheskiy zavod)

GULYAYEV, A.P., doktor tekhn.nauk; LEYKIN, I.M., kand.tekhn.nauk; ROSHCHINA, A.A., inzh.; UTKIN, V.M., inzh.

Highly resistant steel for the reinforcement of prestressed reinforced concrete construction. Stal' 21 no.10:939-944 O '61. (MIRA 14:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

(Concrete reinforcement)

LEYKIN, I.M.; LEBEDEV, Yu.I.

Investigating converter steel quality. Biul. TSIICHM no.3: 40-42 '61. (MIRA 14:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

(Bessemer process)
(Steel--Testing)

LEYKIN, I.M., kand.tekhn.nauk; TORPANOVA, G.A., kand.tekhn.nauk

Conference on the coordination of research on low-alloy steels.
Stal' 22 no.3:268-269 Mr '62. (MIRA 15:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Metallurgical research—Congresses) (Steel alloys)

KLAUSTING, Ye.A.; LEYKIN, I.M.; SABIYEV, M.P.; IMSHENETSKIY, V.I.; CHERNER, M.I.; Prinimali uchastiye: PIKULIN, S.A.; KONSTANTINOVA, T.A.; KOVAL', F.Ya.; KRYZHEPOL'SKAYA, S.P.; SHUL'GA, Ye.A.; NIKITIN, V.N.; DOROFEYEVA, A.N.

From practices of producing 19G steel at the Kommunarskiy Metallurgical Plant. Stal' 22 no.2:155-159 F '62. (MIRA 15:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii i Kommunarskiy metallurgicheskiy zavod.
(Kommunarskiy--Steel alloys--Metallurgy)
(Rolling (Metalwork))

BRODSKIY, A.Ya.; FRIDMAN, A.M.; MULIN, N.M.; LEYKIN, I.M.; ROSHCHINA, A.A.

Low-alloy ribbed reinforcing steel with large diameters (40 to 90 mm.). Bet. i zhel.-bet. 8 no.7:303-306 Jl '62. (MIRA 15:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy Akademii stroitel'stva i arkhitektury SSSR (for Brodskiy, Fridman). 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR (for Mulin). 3. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Leykin, Roshchina).
(Concrete reinforcement--Testing)

LEYKIN, I.M.; UTKIN, V.M.; ROSHCHINA, A.A.

The 28GS2 reinforcement steel. Sbor.trud.TSNIICHM no.27:10-25 '62. (MIRA 15:8)
(Steel—Metallurgy) (Concrete reinforcement)

LEYKIN, I.M., UTKIN, V.M., ROSHCHINA, A.A.

28GS2 steel for reinforcing concrete.

SPECIAL STEELS AND ALLOYS (SPETSIAL'NYYE STALI I SPLAVY), Collection of Studies, Issue 27, 240 pages, published by the State Scientific and Technical Publishing House for Ferrous and Non-Ferrous Metallurgy, Moscow, USSR, 1962.

ALFEROVA, N.S., doktor tekhn. nauk; BERNSHTEYN, M.L., kand. tekhn. nauk; BLANTER, M.Ye., doktor tekhn. nauk; BOKSHTEYN, S.Z., doktor tekhn.nauk; VINOGRAD, M.I., kand. tekhn.nauk; GAMOV, M.I., inzh.; GELLER, Yu.A., doktor tekhn. nauk; GOTLIB, L.I., kand. tekhn. nauk; GRDINA, Yu.V., doktor tekhn.nauk; GRIGOROVICH, V.K., kand. tekhn. nauk; GULYAYEV, B.B., doktor tekhn. nauk; DOVGALEVSKIY, Ya.M., kand. tekhn. nauk; DUDOVTSEV, P.A., kand. tekhn. nauk [deceased]; KIDIN, I.N., doktor tekhn. nauk; LEYKIN, I.M., kand. tekhn. nauk; LIVSHITS, B.G., doktor tekhn. nauk; LIVSHITS, L.S., kand.tekhn. nauk; L'VOV, M.A., kand. tekhn. nauk; MEYERSON, G.A., doktor tekhn. nauk; MINKEVICH, A.N., kand. tekhn. nauk; NATANSON, A.K., kand. tekhn. nauk; NAKHIMOV, A.M., inzh.; NAKHIMOV, D.M., kand. tekhn. nauk; OSTRIN, G.Ya., inzh.; PANASENKO, F.L., inzh.; SOLODIKHIN, A.G., kand. tekhn.nauk; KHIMUSHIN, F.F., kand. tekhn. nauk; CHERNASHKIN, V.G., kand. tekhn. nauk; YUDIN, A.A., kand. fiz.-mat. nauk; YANKOVSKIY, V.M., kand. tekhn. nauk; RAKHSHTADT, A.G., red.; GORDON, L.M., red. izd-va; VAYNSHTEYN, Ye.B., tekhn. red.

(Continued on next card)

ALFEROVA, N.S.--- (continued) Card 2.

[Metallography and the heat treatment of steel]Metallovedenie i termicheskaia obrabotka stali; spravochnik. Izd.2., perer. i dop. Pod red. M.L.Bernshteina i A.G. Rakhshtadta. Moskva, Metallurgizdat. Vol.2. 1962. 1656 p. (MIRA 15:10)
(Steel--Metallography)
(Steel--Heat treatment)

LEYKIN, I.M.; LEBEDEV, Yu.I.; ANDREYEV, I.I.; BEDA, N.N.; Prinimali uchastiye: LIVSHITS, G.L.; TERENT'YEVA, Ya.K.; FILONOV, V.G.; GONCHAROV, I.A.; NAFTALOVICH, S.M.; KUPRIKOV, P.Z.; ABKINA, R.I.; ROSHCHINA, A.A.; LUPYAKOV, A.G.

Steel of the 18G2-grade. Sbor. trud TSNIICHM no.35:92-101 '63. (MIRA 17:2)

LEYKIN, I.N., inzh.

Conveying and filtration of the air contaminated by dangerous explosives. Vod. i san. tekh. no.9:25-29 S '65. (MIRA 18:9)

L 10310-67 EWT(d)/EWT(l)/EWP(v)/EWP(k)/EWT(h)/EWT(l) TC
ACC NR: AP6029898 SOURCE CODE: UR/0413/66/000/015/0060/0060

INVENTORS: Gankin, I. A.; Loykin, I. V.; Gorodotskiy, M. A.; Romm, I. M.

ORG: none

TITLE: A multichannel device for controlling the closing reliability of contacts. Class 21, No. 184352 [announced by Leningrad Industrial Society "Krasnaya Zarya" (Leningradskoye proizvodstvennoye ob"yedineniye "Krasnaya zarya")]

SOURCE: Izobrot prom obraz tov zn, no. 15, 1966, 60

TOPIC TAGS: circuit reliability, electric switch, resistance bridge

ABSTRACT: This Author Certificate presents a multichannel device for controlling the closing reliability of contacts of low voltage electric equipment. The device provides for recording the failure associated with the increase of the junction resistance of the contacts being tested above an established limit. The device includes the test contacts, a power supply source for the test contacts, load resistances in the contact circuits, transistorized amplifiers with a source of stabilized voltage bias, a threshold sensing element, and a unit for recording the failures (see Fig. 1). The design increases the precision and stability of the device and makes it possible to reset simultaneously the recording threshold of all channels. The threshold sensing element of the device is made in the form of a bridge

UDC: 621.318.56.066.6.087-752

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L 103
ACC NR: AP6029898

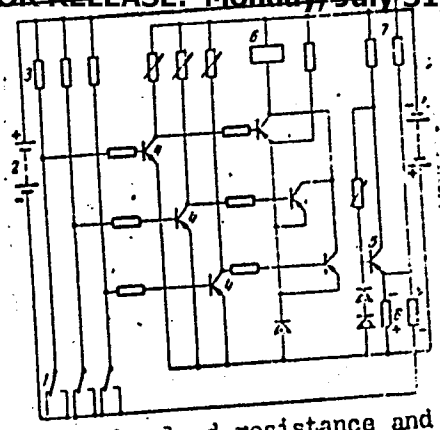

Fig. 1. 1 - test contacts; 2 - power supply source; 3 - load resistances; 4 - amplifiers; 5 - source of stabilized voltage; 6 - recording unit; 7 - resistance equal to the load resistance; 8 - resistance equal to the established limiting value of the junction resistance

with one arm comprised of a load resistance and the test contact of each channel. The other arm of the bridge is comprised of a divider consisting of a resistance equal to the load resistance and of a resistance equal to the established limiting value of the junction resistance. The power supply source of the test contacts is connected to one of the diagonals of the bridge. The amplifiers (made with transistors) are connected to the appropriate diagonals of each of the channels. To reduce the mutual influence of the separate channels on the recording threshold of each channel with a distinct magnitude of the junction resistance of the test contacts, the recording unit is connected to the amplifiers through buffer stage transistors. To reduce the influence of the amplifier on the conditions of the test contacts and to protect the

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L 10310-67

ACC NR: AP6029898

transistors of the amplifier when an increased voltage is fed to the test contacts, a diode is connected between the amplifier and the test contact of each channel. The diode obtains its voltage bias from an auxiliary power supply source. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 12Mar65

Card 3/3

LEYKIN, L.M., inzh.

Electromagnetic sliding couplings (from "Schiff und Hafen" no.8, 1956). Sudostroenie 24 no.2:69-70 F '58. (MIRA 11:3)
(Marine diesel engines)

MOCHALOV, V.A.; MATYUSHCHENKO, D.D.; KRIVITSKIY, A.A.; GLEZER, G.N.; OPARIN, I.M.; KHEYMAN, E.L.; SMETNEV, N.N.; EPSHTEYN, A.L.; GUSEV, B.Ya.; LEYKIN, L.P.; MARCHENKO, G.M.; FISHKOV, V.G.; SAPROVSKIY, S.V.; LYAKHOVSKIY, I.I.; SMELYAKOV, Ye.P.; VAYNTRAUB, D.A.; BUDYLIN, M.M.; NOTKIN, Ye.M.; KUR, G.Ye.; ARONSHTEYN, N.A.; SUKHAREV, V.I.; VINOGRADOV, K.N.; BOBROVSKIY, N.S.

Innovators' certificates and patents. Mashinostroenie no. 2: 103-109 Mr-Ap '64. (MIRA 17:5)

LEYKIN, L.S.

Our method of using epilin plaster to treat pilomycosis of the hairy part of the head. Zdrav. Belor. 5 no.11:50-51 N '59. (MIRA 13:3)

1. Iz Baranovichskogo mezhraykozhvendispansera (glavnyy vrach L.S. Leykin, nauchnyy rukovoditel' - dotsent N.F. Pavlov).
(SCALP--DISEASES)

LEYKIN, L.S.

Step method of treating fungous diseases. Sbor.nauch.rab.Bel.nauch.-issl.kozhno-ven.inst. 6:341-343 '59. (MIRA 13:11)
(MEDICAL MYCOLOGY)

BRUDNER, I.Kh.; LEYKIN, L.S.

Work of interdistrict dermatovenereological dispensaries of the Brest area. Vest.derm.i ven. 34 no.12:45 '60. (MIRA 14:1)

1. Iz Brestskogo oblastnogo kozhno-venerologicheskogo dispansera (glavnyy vrach I.Kh. Brudner, i Baranovichskogo mezhrayonnogo kozhno-venerologicheskogo dispansera (glavnyy vrach L.S. Leykin).
(BREST PROVINCE--DERMATOLOGY) (BREST PROVINCE--VENEREAL DISEASES)

LEYKIN, L.S.

Side effects and complications following the use of a 4 per cent epilin plaster. Zdrav.Bel. 8 no.2:32-34 F '62. (MIRA 15:11)

1. Iz Baranovicheskogo mezhrayonnogo kozhno-venerologicheskogo dispansera (glavnyy vrach - L.S.Leykin, nauchnyy rukovoditel' - zaveduyushchiy kafedroy dermato-venerologii Belorusskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey - dotsent N.F.Pavlov).
(FUNGICIDES--TOXICOLOGY)

LEYKIN, M., nauchnyy sotrudnik, gornyy inzh.; MESHMAN, A., inzh.-mekhanik; YAKHNOVICH, D.

From the experience of subsurface exploitation of limestone deposits. Okh. truda i sots. strakh. no.6:79 Je '59. (MIRA 12:10)

1.KF NIISMiI (forLeykin). 2.Nachal'nik otdela novoy tekhniki i tekhnologii KF NIISMiI (for Meshman). 3.Promyshlenno-sanitarnyy vrach oblastnoy sanepidstantsii, Simferopol' (for Yakhnovich).
(Limestone) (Mining engineering)

MESHMAN, A.,inzh.-mekhanik; LEYKIN, M.,gornyy inzh.

Some flaws in stonecutting machinery. Okhr.truda i sots.strakh. no.1:82-84 Ja '59. (MIRA 12:2)
(Crimea--Stonecutting--Hygienic aspects)

MESHMAN, A.N., inzh.; LEYKIN, M.G., inzh.

Designs of stonecutting machines. Stroi. i dor. mashinostr. 4 no.11:36-38 N '59 (MIRA 13:3)
(Quarries and quarrying- Equipment and supplies)

STARCHIKOV, A., inzh.; LEYKIN, M., inzh.

Quarry serving several collective farms. Sel'. stroi. 13 no.4:18 Ap '59. (MIRA 12:6)
(Crimea--Quarries and quarrying)

LEYKIN, M.G., inzh. (Simferopol')

Using stonecutting machinery in building petroleum and liquefied gas storage tanks. Prom. stroi. 37 no.11:53 N '59. (MIRA 13:2)

(Tanks) (Quarries and quarrying--Equipment and supplies)

LEYKIN, M.G., inzh.

Rock cutting machines for mining. Shakht.stroi. 4 no.9: 25-26 S '60. (MIRA 13:8)

1. Nauchno-issledovatel'skiy institut stroitel'nykh materialov (g.Simferopol').
(Mining machinery)

LEYKIN, M.G., inzh.; MAKAROV, V.L., inzh.; MESHMAN, A.N., inzh.

Performance testing of the SM-580A stonecutting machine. Stroi. i dor. mashinostr. 5 no.4:26-27 Ap '60. (MIRA 13:9)
(Quarries and quarrying--Equipment and supplies)

LEYKIN, M.G., inzh.; MESHMAN, M.G., inzh.; STARICHKOV, A.V., inzh.

Mechanization of building-stone quarries. Mekh. stroi. 17 no.9:18-22 S '60. (MIRA 13:9)
(Quarries and quarrying--Equipment and supplies)

LEYKIN, M.G., inzh.

Use of stone-cutting machines in underground construction.
Stroi.truboprov. 6 no.7:27-28 Jl '61. (MIRA 14:8)
(Stonecutting--Equipment and supplies)
(Underground construction)

GAL'PERIN, M.I., doktor tekhn.nauk; LEYKIN, M.G., inzh.

Study of the operation of blades on stone-cutting machines.
Stroi. i dor. mash. 6 no.9:33-34 S '61. (MIRA 14:10)
(Stonecutting)

LEYKIN, M.G., inzh.; GAL'PERIN, M.I., doktor tekhn.nauk

Modernization of circular saws on the SM-89A and SM-518 stone-cutting machines. Stroi. mat. 7 no.3:33-34 Mr '61. (MIRA 14:4)
(Stone-cutting)

LEYKIN, M.G.; MAKAROV, V.L.

Mechanizing the extraction and loading of building stone. Mekh. stroi. 18 no. 3:16-17 Mr '61. (MIRA 14:5)

1. Krymskiy filial NIISMiI.
(Building stones—Transportation)

LEYKIN, M.G., kand.tekhn.nauk; MAKAROV, V.L., inzh.; BRYANOV, V.V., inzh.

The economic basis of the efficient capacity of sawed stone quarries. Stroi. mat. 8 no.8:21-23 Ag '62. (MIRA 15:9)
(Quarries and quarrying)

GAL'PERIN, M.I., doktor tekhn. nauk; LEYKIN, M.G., inzh.

Power indices of the work of cutters on stonecutting machinery. Mekh. stroi. 18 no.11:11-12 N '61. (MIRA 16:7)

(Inkerman--Stonecutting)

LEYKIN, M.G.

Hard powdered-metal alloys for stonecutting tools.
Standartizatsiia 27 no.10:29-30 O '63. (MIRA 16:11)

LEYKIN, M.G., kand. tekhn. nauk

Production of natural stone wall materials and light aggregates.
Stroi. mat. 9 no.7:41 Jl '63. (MIRA 16:11)

LEYKIN, M.G., kand. tekhn. nauk

Investigating stresses in mining machine cutters by the optical polarization method. Shakht. stroi. 8 no.7:13-15 Jl '64. (MIRA 17:10)

1. Krymskiy filial Gosudarstvennogo nauchno-issledovatel'skogo instituta stroitel'nykh materialov Gosstroya SSSR.

LEYKIN, M.G.

Calculating the power to remove the stone dust from disk saws and circular cutters of stonecutting machinery. Sbor. trud. Kish. otd. NIISMI no.4:85-88 '64.

(MIRA 18:2)

LEYKIN, M.G., kand.tekhn.nauk

Review of the book "Wear-resistant tools for construction equipment." Stroi. i dor.mash. 9 no.10:34 O '64.
(MIRA 18:1)

LEYKIN, M.G., kand. tekhn. nauk

Industrial testing of stone-cutting machinery with various types of drive. Stroi. mat. 11 no.5:11-12 My '65. (MIRA 18:9)

OKHRIMENKO, N.N., podpolkovnik med.sluzhby, LEYKIN, M.M., podpolkovnik med.sluzhby (Chita).

Lightning damage to the brain and spinal cord with retarded formation of multiple hemangiomas. Vrach.delo no.7:733 Jl'58 (MIRA 11:9)
(ELECTRICITY, INJURIES FROM)
(TUMORS)
(NERVOUS SYSTEM--WOUNDS AND INJURIES)